

United States Government

Department of Energy

Rocky Flats Field Office

memorandum

DATE: APR 24 1998

REPLY TO

ATTN OF: AME:DL:02525

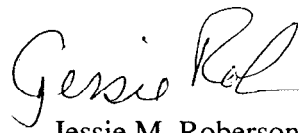
SUBJECT: Rocky Flats Field Office Technical Qualification Program Phase I Assessment

TO: Stephen D. Richardson, Deputy Manager, Oakridge Operations Office

The Rocky Flats Field Office (RFFO) Technical Qualification Program (TQP) Phase I Assessment Report is attached. This report is a result of an assessment that the RFFO performed on its TQP and is a deliverable under Section 5.4.2 of the revised draft 93-3 Implementation Plan (IP) dated February 27, 1998. The assessment was performed by the RFFO Internal Assessment Team. This team is the independent assessment group for this office. I believe this report meets the intent of the deliverable for the Phase I assessment.

The attached report identifies the strengths and weaknesses associated with the RFFO TQP. It is the RFFO's intent to revise and redesign the TQP to address the weakness of the program. The RFFO's approach will be guided by the principles outlined in the revised 93-3 IP, and will utilize the systematic approach to training.

I will forward the RFFO TQP improvement plan to you by the end of April. If you have any questions, or require additional information, please contact me at (303) 966-2025 or David Lowe at (303) 966-6592.



Jessie M. Roberson
Manager

Attachment

Richardson

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cc

T. Evans, HR-3 1 ,HQ

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**Office of Internal Assessment
Report OIA 97-06**



**Technical Qualification
Program Assessment**



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COPY #7

June 1997

Paul L. Hartmann 
Director, Office of Internal Assessment, DOE/RFFO

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U.S. Department of Energy
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EXECUTIVE SUMMARY

The Rocky Flats Field Office (RFFO) Assistant Manager of Engineering requested that an internal assessment of the RFFO Technical Qualification Program (TQP or program) be conducted. This internal assessment was conducted to determine if the RFFO will meet the May 1998 commitment to the Defense Nuclear Facilities Safety Board (DNFSB) for completion of the candidate's TQP. Additionally, it was requested that the RFFO Office of Internal Assessment (OIA) comment on the overall quality of the TQP. The formal evaluation was initiated on March 3, 1997, with the entrance briefing by the OIA. Assessment activities were completed on May 1, 1997. The status and progress of candidate's TQP are provided in the main body of the report. Recommendations for improvement are provided where applicable.

The OIA assessment team evaluated the RFFO TQP; the qualification approval process; reviewed 152 candidate files; and conducted 44 interviews. The goal was to determine each candidate's actual completion status and to determine if the TQP was effective as well as capable of fulfilling the RFFO May 1998 commitment. The TQP status and official personnel rosters are as of February 28, 1997, and any organization or personnel changes since that time are not reflected in this report.

In summary, OIA found that RFFO has not made sufficient progress to ensure completion of TQP requirements by the May 1998 deadline. The RFFO has completed only 34 percent of qualification process although 58 percent of the allotted time has passed. This completion status includes Facility Representative progress, which was largely complete prior to implementation of this portion of the TQP. With the Facility Representatives excluded from the overall progress report, RFFO progress would be only 26 percent (General Technical Base [General] 47 percent, Functional Area [Functional] 25 percent, and Site Specific [Site] 7 percent). It is unlikely that RFFO will complete candidate qualification without significant management attention.

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EXECUTIVE SUMMARY (Continued)

Of the areas reviewed, the assessment revealed strengths, weaknesses, and observations. The key strengths, weaknesses and recommendations are summarized below:

Key Strengths:

1. The RFFO TQP Team (Training) have made an extensive effort to implement the TQP as it is outlined in DOE Order 360.1. Specifically, Training personnel have made great efforts to make the program user-friendly and have acted with genuine customer orientation.
2. Some RFFO organizations have made notable progress toward completion of TQP requirements. Specific organizations noted here for their efforts include the Performance Assessment Safety and Health Division (PA - S&H) and both divisions of Performance Assessment Facility Representatives.

Key Weaknesses:

1. The prevailing attitude toward the TQP within the RFFO appears to be very negative, which is hindering timely completion of the requirements.
 - a) Numerous candidates were unable to locate their qualification cards, and appeared unconcerned about proper record keeping for the program. Approximately one fourth of all RFFO candidates have made zero progress on their qualification requirements, and more than three fourths of all RFFO candidates have made zero progress on their Site qualification cards. This is the major weakness of the program at RFFO.
 - b) Management support for the program appears to be limited. Several managers interviewed expressed the opinion that the program added little or no value. Additionally, several candidates expressed difficulty in obtaining their manager's assistance in completion of their qualification requirements. These statements appear to be supported by the significant lack of progress on Functional and Site qualification cards, which must be signed by the candidate's manager.
 - c) Candidates typically expressed an attitude that the program added little value. A number of personnel regarded the program as demeaning to their technical competency.

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EXECUTIVE SUMMARY (Continued)

2. The lack of written RFFO policies and procedures for the implementation of the RFFO TQP has resulted in significant difficulties in understanding and successfully implementing the program requirements.
 - a) Numerous candidates in the program lacked Functional and Site qualification cards. Significant confusion exists as to who is responsible to revise and update the qualification requirements. Communication on this topic appears to have been inadequate.
 - b) Many candidates were unaware of their qualification deadline.
 - c) Many candidates did not understand the importance of record keeping with respect to their qualification cards and qualification status.
 - d) Candidate transfers to different jobs have resulted in required changes to their job function but no changes to their qualification standards.
 - e) Candidates on detail to other organizations currently have indeterminate qualification due dates. It is unclear as to what the RFFO policy is on this topic, and when these candidates are expected to qualify.
 - f) Several Functional Areas important to nuclear safety activities are not adequately represented in the RFFO 93-3 skill mix profile. These include the areas of decontamination and decommissioning, quality assurance, and transportation.

An overall lack of appreciation for the importance of the RFFO TQP is considered a significant contributor to the key weaknesses observed during this assessment effort.

Key Recommendations

1. The RFFO should undertake an effort to revise, streamline and implement the use of the equivalency process. Many of the candidates reviewed possess education and experience attributes that could easily and justifiably be translated to equivalencies.
2. The TQP should be emphasized as a management priority. Managers need to be more involved and must emphasize that candidates are expected to complete the TQP requirements.

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EXECUTIVE SUMMARY (Continued)

3. The RFFO should consider mandating that managers set aside blocks of time on a regular weekly basis for candidate qualification purposes.
4. The RFFO should establish a short-term due date by which all required revisions to qualification standards must be completed. All candidates must have valid-Functional and Site- qualification cards in order to fulfill their requirements.
5. The RFFO should establish a written policy outlining program objectives. This policy should clearly delineate roles and responsibilities for revision of qualification standards, candidate details, record keeping, program communication, accountability, and other related topics.
6. The RFFO should consider revising the qualification process for the Functional and Site qualification standards. Specifically, RFFO should develop lists of qualified individuals who can sign these standards, similar to current implementation of the General qualification card process rather than requiring supervisors alone to sign these areas.
7. The RFFO should establish qualification requirements, associated training, and select appropriate candidates for the functional areas of decontamination and decommissioning, quality assurance, and transportation.
8. As a overall method to improve the quality of the current program, RFFO management should consider implementing changes to the TQP process, requiring candidates to complete comprehensive examinations and oral boards in order to complete the qualification process. These changes would strengthen the quality of the program and provide objective certification of employee qualification.

Strengths, weaknesses, concerns, and recommendations are discussed in greater detail in the Review Summaries of this report.

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I. PURPOSE

This review was performed by the RFFO OIA. It provides an evaluation of the RFFO's ability to meet its TQP commitment to the DNFSB and addresses RFFO progress in completing candidate qualifications by the May 1998 deadline. In addition, this review provides an evaluation of the overall effectiveness and quality of the RFFO program.

II. OBJECTIVE

The objective of this review was to provide an independent and objective review of the RFFO's ability to complete the TQP requirements by the May 1998 date. A second objective of the review effort was to determine whether the RFFO TQP is providing quality results and will meet the expectations of the DNFSB.

III. DISCUSSION

A. BACKGROUND

The Department of Energy (DOE) entered into an agreement with the DNFSB to ensure that persons responsible for nuclear safety activities were qualified for the job. This agreement was addressed as the TQP or program. In response to the DOE commitment, RFFO agreed to the completion of TQP requirements by May 1998. According to this commitment, all 152 'candidates designated as program candidates would have their educational, training, and work experience requirements completed by the 1998 date. Since that commitment, the DNFSB and the DOE have made two major changes that have affected approximately 37 of the original candidates. Completion dates for these candidates has been moved to May 1999. There are four additional candidates who are on extended off-site detail and two candidates who are assigned qualification areas that have no criteria established by DOE as of the date of this review.

With the above stated changes, there are 115 remaining RFFO candidates who are obligated to complete their program requirements by the May 1998 deadline.

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III. DISCUSSION (Continued)

B. SCOPE

The review focused on program documentation completed prior to February 28, 1997. In addition to the program requirements, the OIA team also reviewed pertinent elements of the DOE Order 360.1, "Training" and RFFO Standard Operating Procedures No. 95-01, No. 95-02, and No. 95-03, Revision 1. The RFFO's progress and procedures were evaluated but the Training Office's performance was not specifically reviewed.

C. METHODOLOGY

The review focused in the following areas:

- Each candidate's completion progress, as of February 28, 1997, was reviewed. This process included evaluation of each candidate's qualification cards and associated exemptions and equivalencies.
- The RFFO process for ensuring accuracy in program reporting to Headquarters.
- Procedures for completing the TQP testing and oral examinations. In this area, OIA interviewed the majority of the qualifying officials to determine their examination procedures and record maintenance.
- Management actions for ensuring that the RFFO deadline will be met was also reviewed. This included interviewing 92 percent of the managers and supervisors who are candidates in the program.

The OIA evaluation of these areas is detailed in the following sections of this report. The criteria and expectations are addressed along with a discussion and observation for each element. In addition, program strengths, weaknesses, and recommendations are identified. The OIA methodology used to accomplish this review and report is defined in the OIA Procedure OIA-101, Conduct of Assessment.

Personnel interviewed are listed in Appendix A. The OIA also performed an extensive review of documents related to the program. Documents that were reviewed are detailed in Appendix C.

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III. DISCUSSION (Continued)

To fully understand the contents of this report, it is important to recognize the unique nature of the program as it relates specifically to RFFO. The program was developed as a result of an agreement made between the DOE and the DNFSB. The program has had high impact on the technical candidates at RFFO, resulting in changes to their position descriptions, additional workload such as training, qualification activities, and perceived employment security. These impacts have resulted in some negative attitudes towards the program.

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IV. REVIEW SUMMARIES

A. PROGRESS TOWARDS THE MAY 1998 COMMITMENT

Criteria / Expectation

As stated earlier, the DOE made a commitment to the DNFSB that RFFO candidates responsible for nuclear safety activities would be placed in TQP. The time allotted for completion of this commitment was three years. This commitment is the May 1998 deadline.

Discussion and Observations

In 1995, the RFFO enrolled 152 persons in the program. Originally the Training Team was responsible to assist line management with the implementation of the RFFO TQP. The RFFO incorporated the TQP completion requirements into the candidate's position descriptions and their performance ratings. Each candidate was to fulfill three requirements of the program: a General category which was standardized and had 24 required elements; a Functional category which was determined by the general position requirements of the candidate; and a Site area which was developed by the candidate and their supervisor based on specific requirements of the position. According to Training, each candidate had General, Functional, and Site standards and qualification cards by April 1996. This allowed each candidate two years to complete the program.

Training further indicated that each candidate was to maintain their own program records and files. The OIA team contacted each program candidate to obtain copies of qualification cards, exemptions, and equivalencies. Shortly into the review, OIA noted that the majority of the candidates contacted had not maintained adequate records or claimed they did not have qualification cards other than the General card. The OIA team requested data from the Training office in an attempt to reconstruct whole candidate files for the assessment. The maintenance of records is discussed in more detail in Section IV, C of this report.

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A. THE MAY 1998 COMMITMENT (Continued):

As a result of discussions between the DNFSB and the DOE, two program changes were initiated in May 1995. The first change was to the Technical Manager category. The DNFSB believed that Technical Manager was not an acceptable category. In response, the DOE developed a new category called the Senior Technical Safety Manager position. As a result, all candidates that made the change from a Technical Manager to the Senior Technical Safety Manager, received an extended qualification date of May 1999.

The second change was to the Project Manager category. This category was not considered adequate by the DNFSB therefore, each candidate pursuing qualification for this area had to select a secondary Functional category. Due to this change, the candidates in this Project Manager program were also extended to the 1999 completion date. As a result of these changes, 37 RFFO candidates moved from the 1998 deadline to 1999. This leaves the 115 candidates that must qualify by the May 1998 deadline.

Included in the above data (115) are 22 Facility Representatives. These candidates are included in the official TQP reports that are forwarded to Headquarters. Although, they are officially included in the program, their training and educational requirements are completely different from other TQP candidates. They only have Functional and Facility qualification cards and are required to be qualified before they are allowed to perform their duties. Therefore, these candidates were allowed a full year to complete their program with 100 percent training time. Their high completion percentages result in a more favorable picture of how RFFO is doing in fulfilling their commitment to complete the TQP program by the May 1998 deadline.

As of February 28, 1997, the following is the categorization of the RFFO TQP candidates:

Facility Representatives	22
Candidates on extended details	4
Candidates with revised 5/99 deadline	37
Candidates with undetermined dates	2
Candidates due on May 1998	87
 Total RFFO candidates	 152

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A. THE MAY 1998 COMMITMENT (Continued):

After the OIA team compiled files for each candidate, statistics were reviewed to determine the completion status versus the time that had passed and the time that was remaining to complete the program. There were 36 months allowed and as of February 28, 1997, there are 15 months remaining to complete the program. Thus, over 58 percent of the time has elapsed but candidates are only 34 percent complete. This completion percentage includes the Facility Representatives. If Facility Representatives are excluded from the data, the RFFO is only 26 percent complete. A graph of the overall status is provided in Appendix B.

In contrast to the above statistics, there are RFFO groups that have made significant progress. One of these groups include the PA - S&H group. On a routine basis, this group has assigned times where the manager provides for program qualifications. During these time periods, the S&H manager makes the program his highest priority and does not allow any other obligations to interfere with supporting the program by giving checkouts. This Division has four candidates that are 100 percent complete and several others who are further along in the qualification process. Another proactive group is the Compliance Division. They have developed group procedures for studying and testing together and have defined plans to complete the Functional and Site cards by the end of the year. If it were not for these groups' initiatives, RFFO overall completion statistics would be worse.

Strengths / Weaknesses

Strengths:

1. Training has allowed continuous training opportunities for the TQP candidates. They have videos and study guides available for each General criterion. Training has maintained an open door policy for the candidates to take the written tests at almost all opportunities.
2. Training has a TQP training budget specifically for college courses and/or training.
3. The RFFO management developed an expertise list of persons authorized to conduct General oral examinations. Training gave a training session to those authorized signers providing a standard for adequately demonstration of knowledge.

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A. THE MAY 1998 COMMITMENT (Continued):

Weaknesses:

1. TQP record keeping needs improvement.
2. There is no written formal policy for TQP candidates who are on extended, off-site details. It was questionable how these candidates were to be treated in the analysis of this report.
3. Considering the lack of progress, it appears that management has not emphasized or communicated the importance of the program completion to candidates.

Recommendations

1. A RFFO written policy or procedure should be developed that identifies each Division and person's role.
2. Managers need to provide more availability time to approve the candidates' qualification cards for qualification progress.
3. Management must establish this deadline as a Site priority in order to fulfill the May 1998 deadline.

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B. RFFO ATTITUDE TOWARDS PROGRAM

Criteria / Expectation

The RFFO candidates should obtain professional value from participation in the TQP.

Discussion and Observations

The predominant attitude of RFFO personnel, throughout *all* levels of the organization, was that the TQP qualification program *provided very little or no benefit to RFFO* as it is currently implemented. Most candidates felt that there was virtually no improvement in technical competency being realized for the effort, time, and cost being put into the qualification process. Many interviewees, *at both the worker and managerial level*, stated that the program was a "paperwork exercise" that was being done primarily to satisfy the DNFSB. Numerous interviewees stated that the imposition of qualification requirements on professional candidates, many with advanced degrees and professional certifications, has had a negative effect on field office morale. Some individuals supported the concept of having qualification requirements, but even these personnel were doubtful that the current process would provide any improvement in RFFO technical competency.

A further indicator of the attitude issue discussed above is the fact that a large percentage of RFFO candidates contacted about their qualification progress *could not even locate their qualification curds*. In many cases, the candidates did not care whether records were located and emphasized it was a "stupid" program anyway.

OIA also observed there was a lack of management priority to complete their own qualification requirements. In reviewing the managers or supervisor's data, OIA observed they were only 33 percent complete. Only seven of 24 managers were over 50 percent complete. If the seven were removed, the managers would only be 20 percent complete which includes seven who have zero percent completion.

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B. RFFO ATTITUDE TOWARDS PROGRAM (Continued):

Strengths/ Weaknesses

Strengths:

Several candidates emphasized that the General portion of the program would be a very effective training tool for new RFFO candidates or interns. It would provide some well-roundness to new persons unfamiliar with the DOE or a good refresher process for current employees.

Weaknesses:

1. Many of the candidates viewed the TQP program as “stupid” with no benefit.
2. Candidates and managers have not adequately maintained their records.
3. Some managers have not aggressively pursued completion of their own TQP qualifications sending a negative message to the subordinate employees about the program.

Recommendations

1. Managers should set an example by completing their own requirements in a timely manner.
2. Management should establish dates and times for employees to complete requirements without regular work interruptions.
3. Procedures should be developed that will add value and technical knowledge for the candidates.

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C. QUALIFICATION CARDS

Criteria / Expectation

The RFFO TQP candidates have the responsibility to maintain their own TQP files. This includes the standards, qualification cards, exemption forms, and any applicable equivalencies. RFFO Training maintains General test scores and completed General, Functional, and Site packages. All TQP records should be well maintained, current, and completed in a timely manner.

Discussion and Observations

Examination of data obtained shows that, in spite of the attitudes discussed in Section B, ***candidates are willing and capable of completing qualification requirements*** for the General Qualification Card. It should also be noted that RFFO candidates have completed 47 percent of the requirements in the General card, significantly out pacing completion of Functional requirements at 24 percent, and Site requirements at only 7 percent.

The reasons for this can be best understood by examining the process variations in completing the aforementioned cards. Training for the General requirements was easily available by satellite and video tape for the candidates on site, and qualification examinations for these requirements are routinely administered. The Central Training Academy provided the established training program for the General portion of the program. A list of qualified individuals exists that delineates individuals with signature authority for each competency, giving candidates several ways to complete the requirements.

In contrast, the Functional and Site cards have no pre-established training program. Study guides have been developed for some of the Functional areas including some written exams. There is no list of qualifying individuals, similar to the General portion, to sign competencies. The ***candidate's manager/supervisor serves as the only source for qualification, as the candidate's manager/supervisor is the one authorized to sign the qualification card.*** Some interviewees expressed frustration that they were unable to get their manager to sign their qualification cards and some managers provided little time to work on qualifications. Additionally, several interviewees expressed that their managers were not technically competent to sign certain qualification requirements because they were outside the manager's area of expertise. Other candidates stated that they

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C. QUALIFICATION CARDS (Continued):

have put equivalency packages together for their Functional and Site requirements, but the package was still on the supervisor's desk after six months. This has created significant delays in the completion of the candidate's program requirements.

It appears that some individual managers may be unavailable or unsure of how to assist workers in completion of their qualification requirements. At the very least, the current arrangement is a significant barrier to progress on the Functional and Site cards.

The current RFFO practice that authorizes only supervisors or group managers to sign qualification cards has greatly impacted the completion rate of each division or group. Consequently, ***RFFO should consider mandating that managers will be required to set aside several hours a week to perform checkouts.*** This will demonstrate management commitment; allow candidates to get the necessary time with their managers; and focus management on the qualification process. It would further motivate managers to complete the process for their own programs.

Another problem is organizational out-of-date qualification cards. Following the initial issuance of qualification cards to RFFO candidates, each line organization then became responsible to revise or adjust the qualification requirements of individuals that change jobs or functions. However, some ***candidates still had Mission Advocacy Site Cards a full year after a reorganization that eliminated the Mission Advocacy organization. In some cases the Site cards were not applicable to their current work and the others needed some revisions.*** There were several other individuals with changed positions that were in the same situation.

At the start of the RFFO program, Training assisted and provided the RFFO candidates with their Functional and Site standards and qualification cards. This procedure was to be changed by a memorandum dated September 18, 1996. This memorandum was to m-designate this responsibility from Training to line management. OIA noted that although the memorandum was sent out to develop a group to work on this change, this action was never accomplished. Therefore, Training has stated that the candidates are responsible to develop their own standards and qualification cards while candidates continue to wait for Training to accomplish this activity. Training has communicated the need to maintain the qualification records by the candidates. Training has also requested monthly updates through e-mail and memoranda to get an accurate status of the program.

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C. QUALIFICATION CARDS (Continued):

Strengths / Weaknesses

Strengths:

None

Weaknesses:

1. Personal maintenance of TQP qualification cards has not been implemented effectively.
2. Some supervisors are not approving the candidate's equivalencies in a timely manner.
3. Some candidates had out-of-date or invalid qualification cards.

Recommendations

1. Develop TQP program procedures and written policies to specify requirements for personal maintenance of qualification records.
2. All candidate's should have valid Functional and Site qualification cards immediately.
3. Establish a group of authorized signers for Functional or Site requirements. This should free up Manager's time and add validity to the approval process.
4. Incorporate TQP requirements into the transfer and hiring process along with the SF-52's and Position Descriptions.

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D. QUALITY OF PROGRAM

Criteria / Expectation

The RFFO TQP program should produce results that meet or exceed the expectations outlined in the DNFSB recommendation.

Discussion and Observations

The General area is designed to allow the candidate to fulfill their requirements by either taking a written test; participating in an oral examination given by one of the authorized signers; providing equivalency documentation; or exempting elements from their requirements.

Written test:

The written tests were developed by DOE and RFFO. Training administers those tests. To date, there have been over 225 tests administered to candidates. OIA reviewed several of the tests and videos utilized for qualification of RFFO candidates. Based on this review OIA questioned whether the subject tests are of the quality that the DNFSB was expecting. In many instances the test reviewed by OIA were not difficult but appropriate for the level of knowledge required by the standard. The degree to which such tests challenge a candidate's knowledge and analytical skills is low.

Oral Examinations:

The OIA team interviewed 24 of the authorized signers. Although written tests were not recommended by Training, two of the 24 authorized signers had written questionnaires. None of the authorizers maintained written records on who they interviewed; what questions the person was asked; or the actual results of the oral examination. Several of the examiners stated that no defined guidelines had been developed for oral exams although the training for the authorized signers had a statement of what needed to be covered in the exams. They had passed people even when they knew that the person had just memorized the study guide but had no knowledge beyond the rote memorization.

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D. QUALITY OF PROGRAM (Continued):

Equivalency acceptance:

There were 41 RFFO candidates who were selected by Training to be authorized signers in a specified field for the General area. These individuals received **automatic equivalencies** based on this selection. When interviewed, these individuals were asked if they had submitted a resume or were interviewed for these positions. All of them stated they had not and the majority had been notified by E-mail of their authorized signer position. The list of authorized signers was looked at by their supervisors and by management for approval for participation.

Most of the TQP candidate's equivalencies were based on completed training courses, college courses, or work experience. In many cases, several equivalencies were granted based on a single course or on an outdated, older college course. OIA **questioned whether this approach fulfills the intent of the DNFSB recommendation.** It is not a problem if the standards are satisfied, however there is a need for closer scrutiny on some of the equivalencies that were done. As stated earlier, there was very limited technical knowledge improvement noted by the candidates, if any.

Again, candidates expressed concern that having their supervisor authorize their Functional and Site qualification cards was a flaw in the program. On several occasions, candidate's questioned why the RFFO experts in the fields were not the authorized signers instead of the supervisors. This process was considered as a hindrance to the program and delayed the candidate in completing the Functional and Site cards in a timely manner.

A concern expressed by several candidates was that the DOE TQP program was not marketable or of value to non-DOE businesses. Candidates questioned why RFFO was not putting their dollars into a nationally recognized professional certification study program that would fulfill the Functional requirement of the program.

There are several nationally recognized organizations that provide professional certifications. These certifications have been approved by Industry and tests have been developed based on the nationally accepted standards. Most of the organizations have standardized education and work experience requirements. The certifications recognize that the person has met or exceeded these professional requirements. It is recognized that the candidate would still have to prove knowledge of the DOE requirements, regulations, and procedures besides the national certification.

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D. QUALITY OF PROGRAM (Continued):

Strengths / Weaknesses

Strengths:

1. Candidates appeared to be actively participating in the written test procedures.

Weaknesses:

1. Candidate equivalencies lack sufficient supporting documentation in their files.
2. Authorized signers for the Functional and Site areas may not have sufficient knowledge in the technical area they are approving.
3. Most RFFO employees are not taking advantage of the opportunities to take the courses to help them get professional certifications.

Recommendations

1. The RFFO should revisit the selection of designated authorized signature personnel and appropriate re-designation should occur where necessary to ensure that subject matter expertise is available for candidate qualification. (See recommendation in Section C)
2. The RFFO management should encourage employees to obtain professional certifications by emphasizing their importance in career development.
3. Training should make employees more aware of the different programs available to take courses and upgrade their expertise.
4. The RFFO should consider a requirement that all RFFO TQP employees satisfy a minimum amount of continuing education units per year. This alone could address the focus of the DNFSB's Recommendation for the "need to upgrade technical expertise."

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D. QUALITY OF PROGRAM (Continued):

5. Training programs should be promoted, for those employees who want to participate, to detail employees to other sites in order to get hands on experience in technical areas. This could also meet the intent of DNFSB Recommendation 93-3.
6. As a overall method to improve the quality of the current program, RFFO management should consider implementing changes to the TQP process, requiring candidates to complete comprehensive examinations and oral boards in order to complete the qualification process. These changes would strengthen the quality of the program and provide objective certification of employee qualification.

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E. EVALUATION OF RFFO SKILL MIX

Criteria / Expectation

The RFFO should maintain the necessary workforce skill mix to ensure nuclear safety.

Discussion and Observations

DNFSB recommendation 93-3 stipulates that **DOE** must obtain additional levels of expertise to manage, direct and guide safe operation of DOE's defense nuclear facilities. Inherent in this recommendation is the understanding that this expertise must be tailored to the mission of the Department and address the various technical and scientific disciplines that embody operation of complex nuclear facilities.

In reviewing implementation of **TQP** program activities, OIA sought to understand the distribution of technical expertise within RFFO. Functional area categories and the number of candidates within each category are detailed in the Table below.

Functional Area	Primary	Secondary
Chemical Processing	3	1
Civil/Structural Engineering	2	
Construction Management & Engineering	1	
Electrical Systems	1	
Emergency Management	4	1
Environment, Safety & Health Resident	4	
Environmental Compliance	7	1
Environmental Restoration	5	13
Facility Maintenance Management	4	
Facility Representatives	22	
Fire Protection	1	
Industrial Hygiene	3	
Mechanical Systems	1	
Nuclear Safety Systems	10	1
Occupational Safety	3	
Project Management	11	1
Radiation Protection	4	
Safeguards & Security	14	
Senior Technical Safety Manager	10	
Technical Training	5	
Technical Manager	12	1
Waste Management	14	3

Table

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U.S. Department of Energy
Rocky Flats Field Office

E. EVALUATION OF RFFO SKILL MIX (Continued):.

From this table it can be seen that RFFO has pursued a candidate qualification profile with heavy concentration in the areas of Environmental Compliance, Environmental Restoration, Nuclear Safety Systems, Safeguards & Security, Senior Technical Safety Manager, and Waste Management. Also of note is the large population of Facility Representatives (22), which provide expertise in a broad spectrum of technical disciplines.

While this profile represents a diverse application of skills, OIA noted several weaknesses in the distribution of technical expertise.

First, the quantity of candidates pursuing qualification in classic engineering disciplines such as; electrical, mechanical, civil/structural, chemical, and fire protection is considered a weakness. Additional levels of expertise in these areas could expedite processing of emerging technical issues and assist other elements of RFFO in analysis and execution of routine work activities. OIA observed that RFFO staff outside of the 93-3 qualification program may possess the skills and requisite education and experience to meet this need. However, until these individuals are designated 93-3 candidates, this area remains program weakness.

Secondly, some elements of expertise traditionally, associated with management and oversight of nuclear safety are not obvious in the existing profile. These include areas such as; decontamination and decommissioning, quality assurance, and transportation. Critical aspects of work to be accomplished under the ten-year mission will require additional expertise in these areas.

Finally, as indicated elsewhere in this report the functional category of Project Manager was not considered adequate by the DNFSB. Currently, 11 candidates are still pursuing qualification in this area.

Strengths / Weaknesses

Strengths:

1. The RFFO skill profile effectively addresses the need for technical expertise in the areas of Environmental Compliance, Environmental Restoration, Nuclear Safety Systems, Safeguards & Security, Senior Technical Safety Manager, and Waste Management.

OFFICE OF INTERNAL ASSESSMENT

U.S. Department of Energy
Rocky Flats Field Office

E. EVALUATION OF RFFO SKILL MIX (Continued):

Weaknesses:

1. A limited number of candidates are pursuing qualification in engineering disciplines important to accomplishing the ten-year mission.
2. The functional areas of decontamination and decommissioning, quality assurance, and transportation are not adequately represented by the existing RFFO skill profile.

Recommendations

1. RFFO should expand the number of candidates pursuing 93-3 qualification in classic engineering disciplines. This may be accomplished by selecting additional candidates from within the existing RFFO staff, or by obtaining additional expertise from outside of the organization.
2. Establish qualification requirements and associated training for the functional areas identified in weakness #2 above.

OFFICE OF INTERNAL ASSESSMENT

U.S. Department of Energy
Rocky Flats Field Office

F. RFFO DATA VERSUS CANDIDATE RECORDS

Criteria / Expectation

The RFFO report to Headquarters HR-2 should accurately reflect the results and status of the TQP program.

Discussion and Observations

The RFFO TQP report is processed by Training. In the reports, the total required elements are divided by the number of elements completed to develop the candidate's overall percent completed. This procedure is acceptable if all the candidates have General, Functional, and Site qualification cards assigned to them. This is not the case, so the percentage results are often misleading to the reader.

Based on review of candidate files, OIA determined that the RFFO TQP report provides inaccurate data in several areas. In many cases, Candidate's records were different from the RFFO data. Many times the candidate's information had not been forwarded to the RFFO Training office. Other discrepancies exist because many candidates did not have a Site card assigned to them or they may have had an improper one (such as the Mission Advocacy Site mentioned earlier).

Another concern was the consolidated inclusion of the Facility Representatives in the overall report. This issue was discussed in Section A, and the OIA team felt this format could mask the overall RFFO completion picture to an uninformed reader.

Strengths / Weaknesses

Strengths:

1. The Training office appears to be making best effort to maintain efficient files and records.

Weaknesses:

1. The "percentage of program completion" statistics shown on the RFFO TQP report could be misleading to the reader.

OFFICE OF INTERNAL ASSESSMENT

U.S. Department of Energy
Rocky Flats Field Office

F. RFFO DATA VERSUS CANDIDATE RECORDS (Continued):

Recommendations

1. The RFFO should develop a procedure that would provide more accurate data in their TQP reporting.

APPENDIX A

LIST OF SUPERVISOR INTERVIEWS

1. Rick Bennett was interviewed by Sandra Clayton on April 21, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Solutions, Uranium & Industrial Hazard Facility Division and the Facility Representatives.
2. George Cannode was interviewed by Richard Magi11 on April 24, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Technical Qualification Program Team.
3. Paul Golan was interviewed by Richard Magi11 on April 9, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Assistant Manager for Program and Planning Integration.
4. Paul Hartmann was interviewed by Sandra Clayton on April 9, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Office of Internal Assessment.
5. Gail Hill was interviewed by Richard Magi11 on April 10, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Regulatory Liaison Group.
6. James Jefferies was interviewed by Daniel Kawamoto on April 16, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to Engineering Division.
7. Jeff Kerridge was interviewed by Sandra Clayton on April 1, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Program Liaison Division.
8. Joseph Legare was interviewed by Sandra Clayton on April 22, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to Environmental Compliance.
9. Frazer Lockhart was interviewed by Sandra Clayton on April 1, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Planning and Integration Division.
10. David Lowe was interviewed by Sandra Clayton on April 23, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Engineering Division.

APPENDIX A (Continued)

11. Matt McCormick was interviewed by Richard Magill on April 7, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to 94-1/94-3 Group.
12. Patrice McEahern was interviewed by Sandra Clayton on April 21, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Solids and Site Support Hazards Facilities Division and the Facility Representatives.
13. Timothy Melberg was interviewed by Sandra Clayton on April 9, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Safety and Health Division.
14. David Ridenour was interviewed by Sandra Clayton on April 9, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Safeguards and Security Division.
15. James Selan was interviewed by Sandra Clayton on April 3, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to Authorization Basis Division.
16. Steve Tower was interviewed by Sandra Clayton on April 1, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Readiness Assessment Group.
17. Reginald Tyler was interviewed by Sandra Clayton on April 9, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to Environmental Restoration - Waste Management Projects Work.
18. Michael Weis was interviewed by Richard Magill on April 15, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Performance Assessment Division.
19. Joseph Wienand was interviewed by Sandra Clayton on April 1, 1997. Subjects discussed were the 93-3 Program and the 93-3 Program as it pertains to the Analysis and Evaluation Staff.

APPENDIX A

LIST OF GENERAL TECHNICAL BASE QUALIFIED SIGNERS & ORAL CHECK OUT SIGNERS

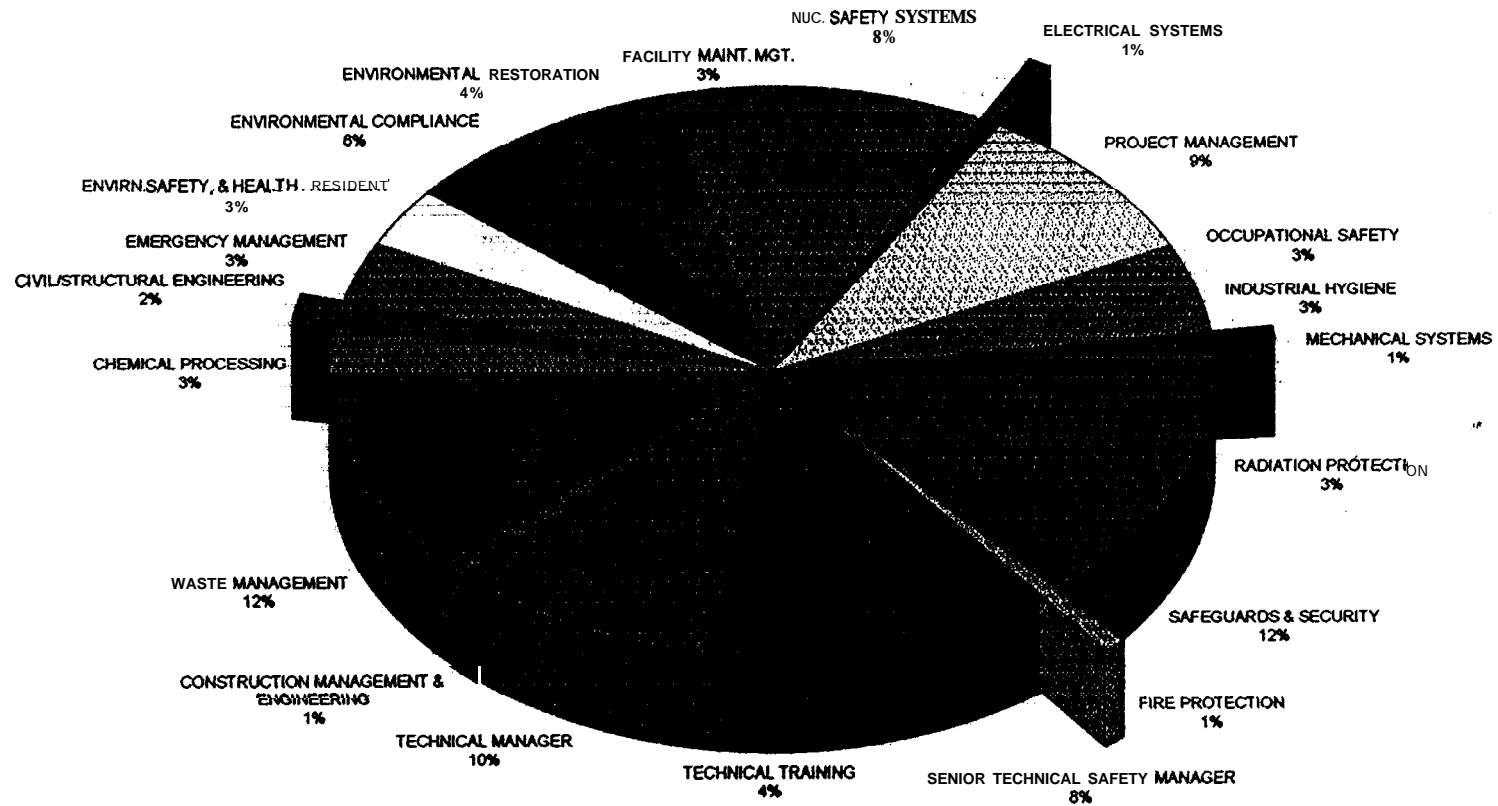
1. Ravi Batra was interviewed by Sandra Clayton on March 28, 1997. Subjects discussed were the 93-3 Program and process used for check out.
2. Robert Bistline was interviewed by Sandra Clayton on March 28, 1997. Subjects discussed were the 93-3 Program and process used for check out.
3. Ronald Bostic was interviewed by Sandra Clayton on March 26, 1997. Subjects discussed were the 93-3 Program and process used for check out.
4. Eva Jean Bryson was interviewed by Sandra Clayton on March 26, 1997. Subjects discussed were the 93-3 Program and process used for check out.
5. James Conti was interviewed by Sandra Clayton on March 26, 1997. Subjects discussed were the 93-3 Program and process used for check out.
6. Michael Erickson was interviewed by Sandra Clayton on March 31, 1997. Subjects discussed were the 93-3 Program and process used for check out.
7. Fred Gerdeman was interviewed by Sandra Clayton on March 26, 1997. Subjects discussed were the 93-3 Program and process used for check out.
8. Thomas Grethel was interviewed by Sandra Clayton on March 26, 1997. Subjects discussed were the 93-3 Program and process used for check out.
9. Paul Hartmann was interviewed by Sandra Clayton on April 9, 1997. Subjects discussed were the 93-3 Program and process used for check out.
10. Phil Hartung was interviewed by Sandra Clayton on March 31, 1997. Subjects discussed were the 93-3 Program and process used for check out.
11. David Hicks was interviewed by Sandra Clayton on March 27, 1997. Subjects discussed were the 93-3 Program and process used for check out.
12. Sally Higgins was interviewed by Sandra Clayton on March 27, 1997. Subjects discussed were the 93-3 Program and process used for check out.
13. Fred Jaeger was interviewed by Sandra Clayton on March 31, 1997. Subjects discussed were the 93-3 Program and process used for check out.
14. Jeff Kerridge was interviewed by Sandra Clayton on April 1, 1997. Subjects discussed were the 93-3 Program and process used for check out.

APPENDIX A (Continued)

15. Frazer Lockhart was interviewed by Sandra Clayton on April 1, 1997. Subjects discussed were the 93-3 Program and process used for check out.
16. Gary Noss was interviewed by Sandra Clayton on March 28, 1997. Subjects discussed were the 93-3 Program and process used for check out.
17. Paul Psomas was interviewed by Sandra Clayton on April 1, 1997. Subjects discussed were the 93-3 Program and process used for check out.
18. Don Rack was interviewed by Sandra Clayton on April 1, 1997. Subjects discussed were the 93-3 Program and process used for check out.
19. James Selan was interviewed by Sandra Clayton on April 3, 1997. Subjects discussed were the 93-3 Program and process used for check out.
20. Janet Torma-Krawjewski was interviewed by Sandra Clayton on April 7, 1997. Subjects discussed were the 93-3 Program and process used for check out.

APPENDIX B

RFFO 93-3 SKILL MIX



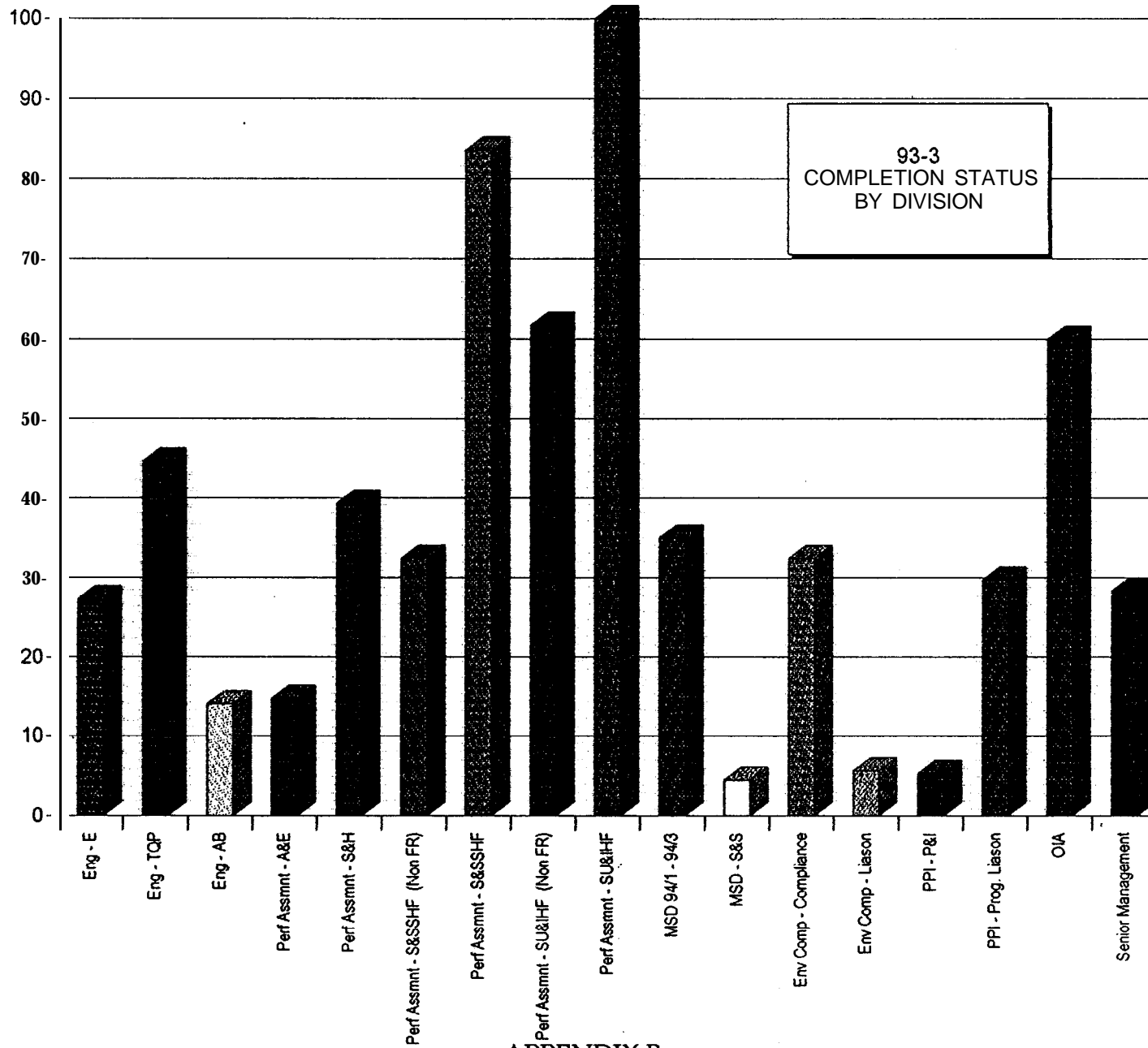
Note: Chart does not include
Facility Rep functional area.

RFFO 93-3 SKILL MIX

APPENDIX B

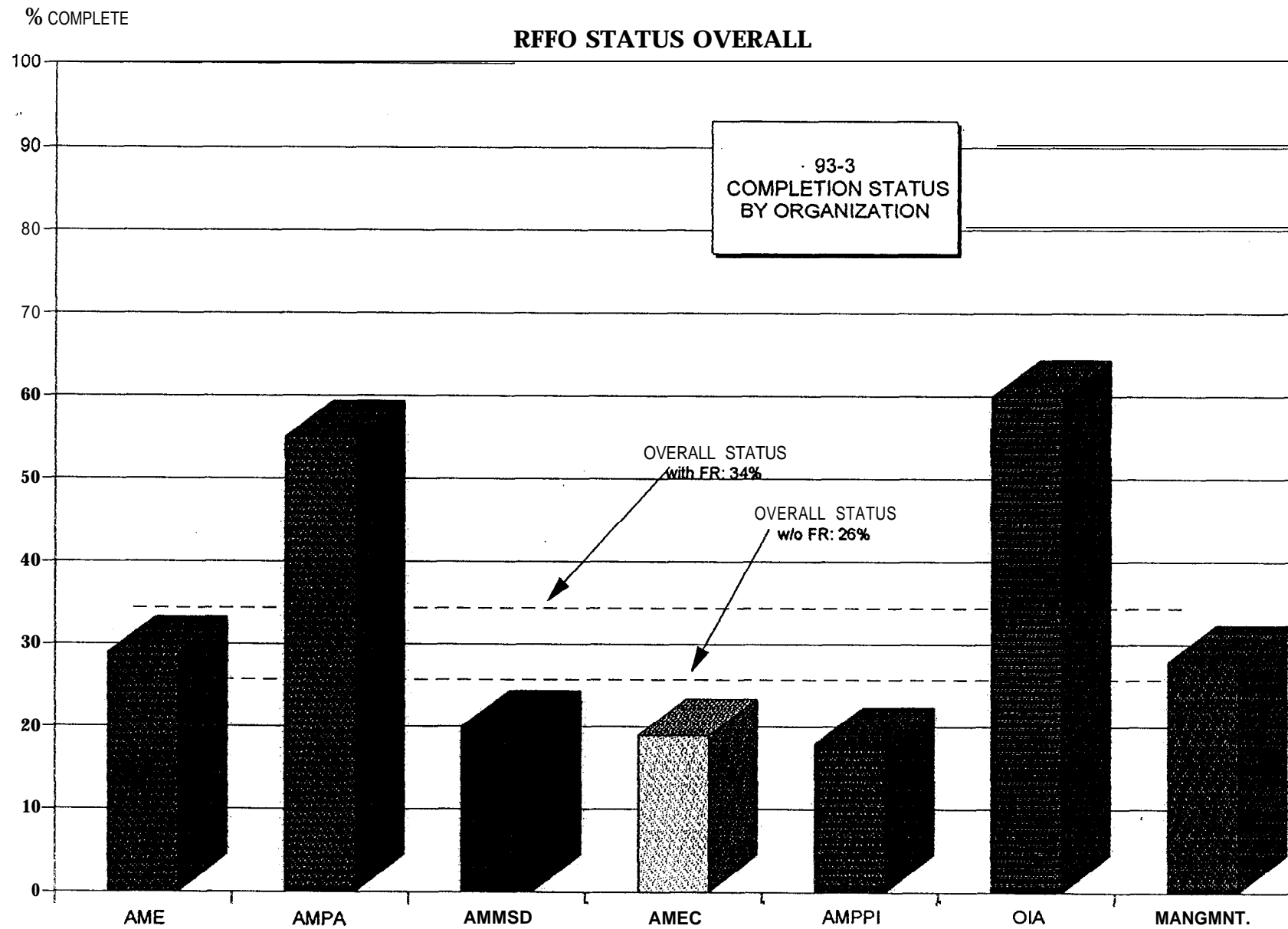
% COMPLETE

RFFO STATUS BY DIVISION



APPENDIX B

APPENDIX B



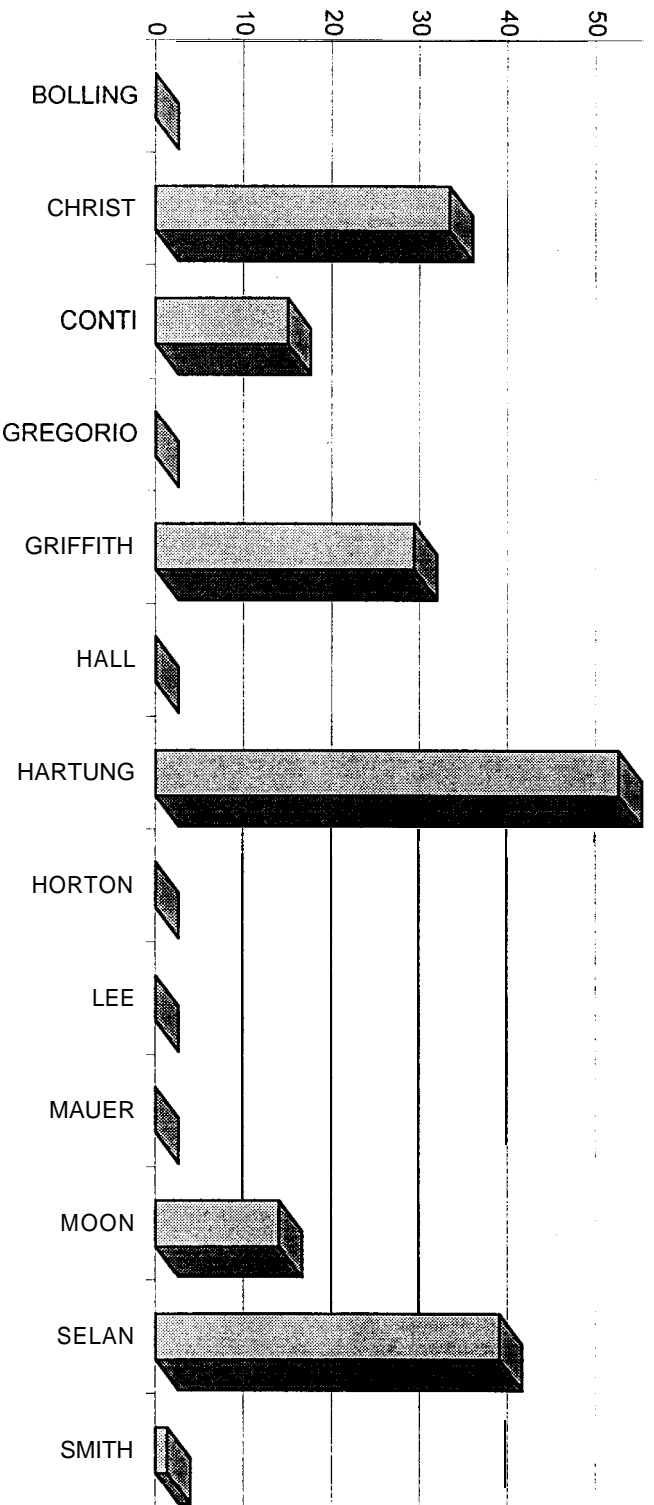
APPENDIX B

APPENDIX B

ENGINEERING - AB

% COMPLETE

OVERALL RATING
14% COMPLETE



APPENDIX B

APPENDIX B

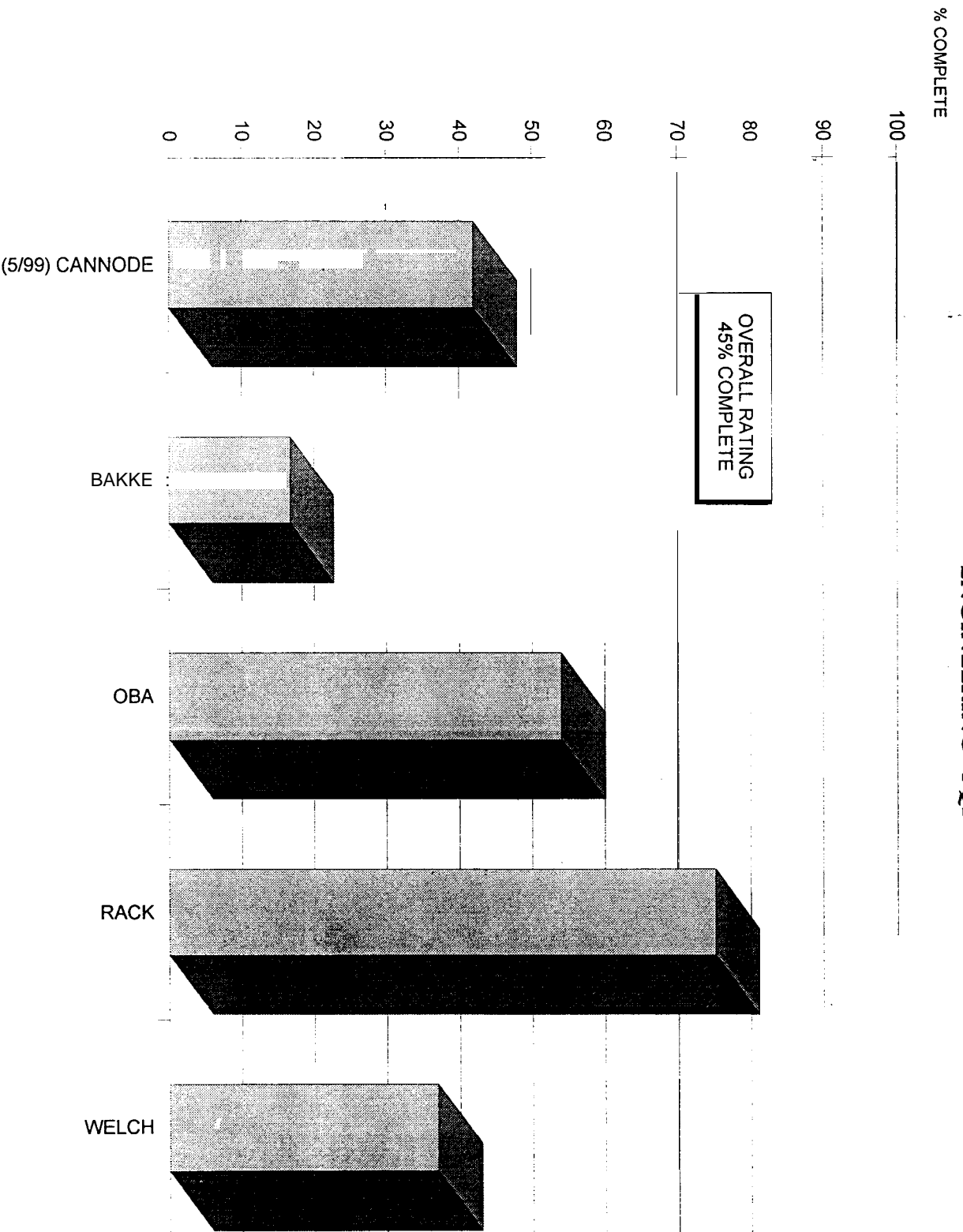
ENGINEERING DIVISION



APPENDIX B

APPENDIX B

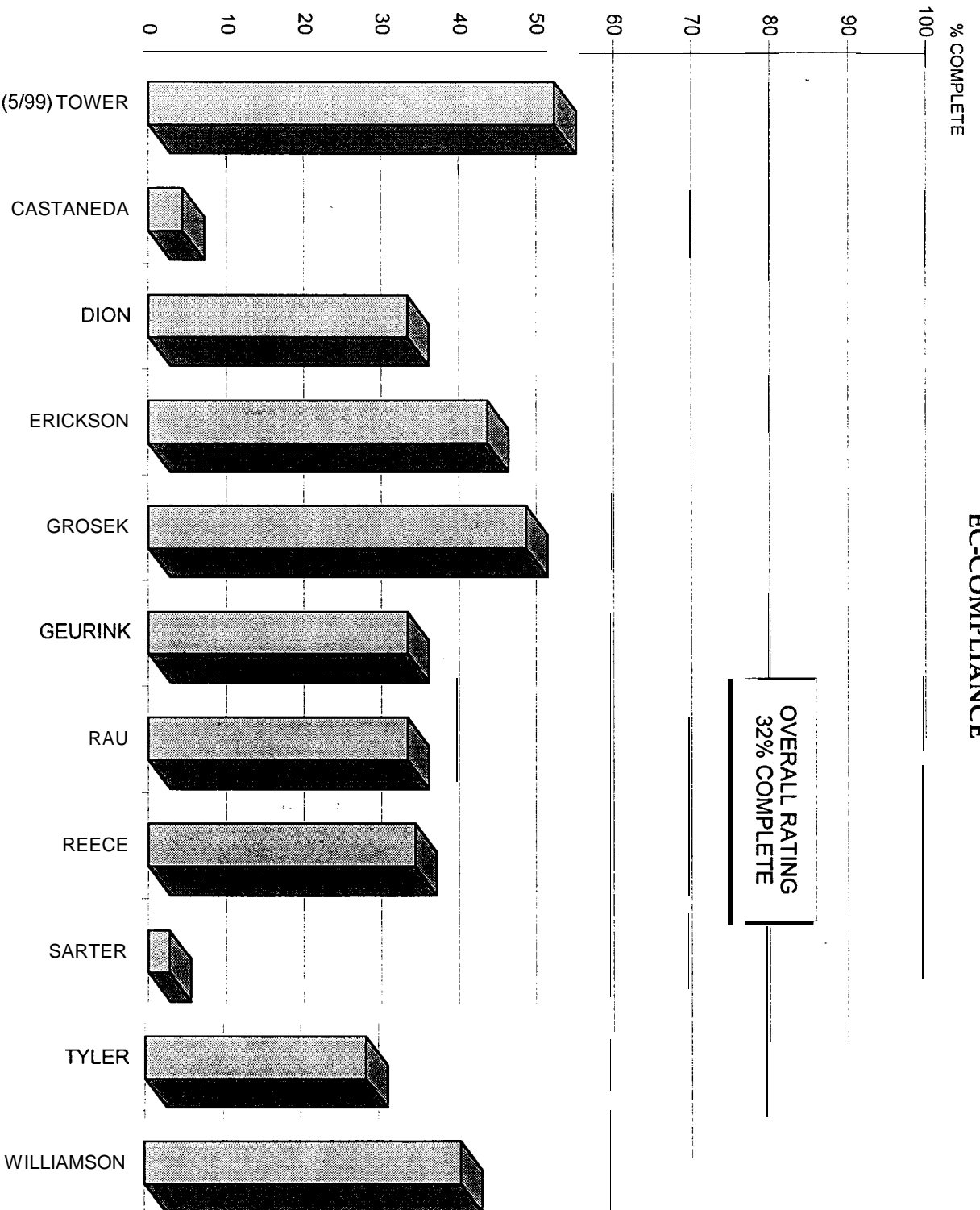
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APPENDIX B

APPENDIX B

EC-COMPLIANCE

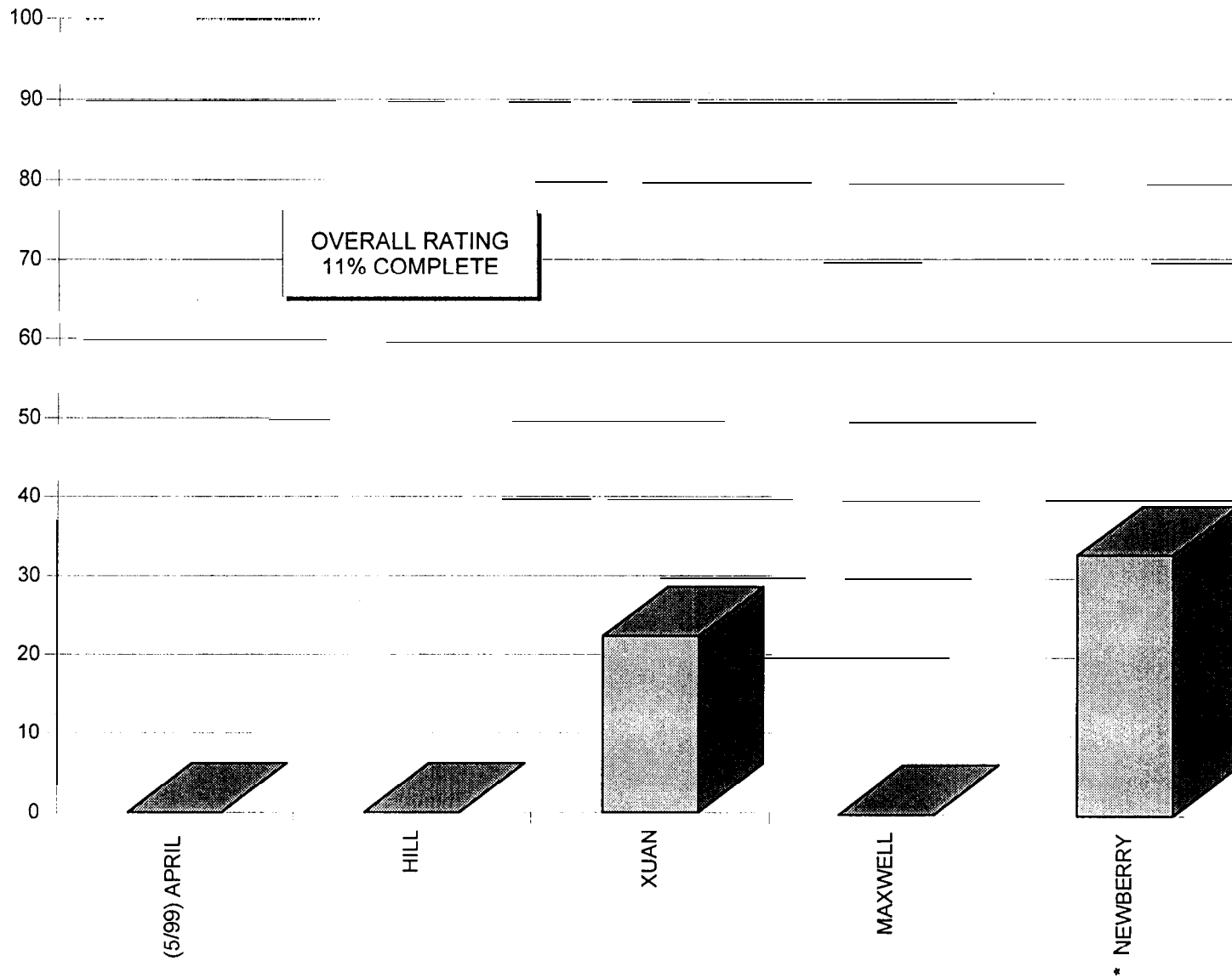


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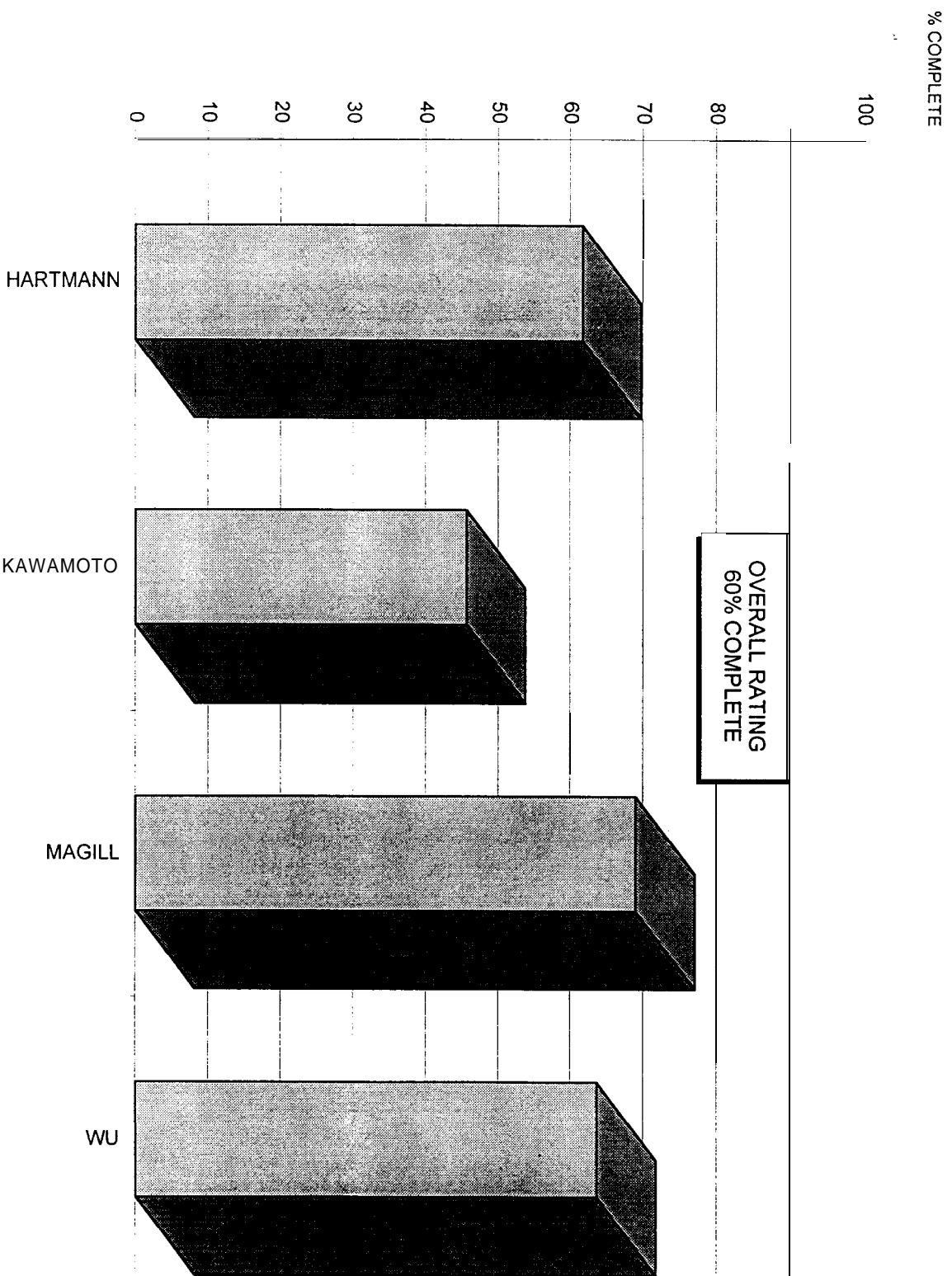
EC - LIASON

% COMPLETE



APPENDIX B

INTERNAL ASSESSMENT



APPENDIX B

APPENDIX B

MSD - 94-1/94-3

% COMPLETE

100

90

80

70

60

50

40

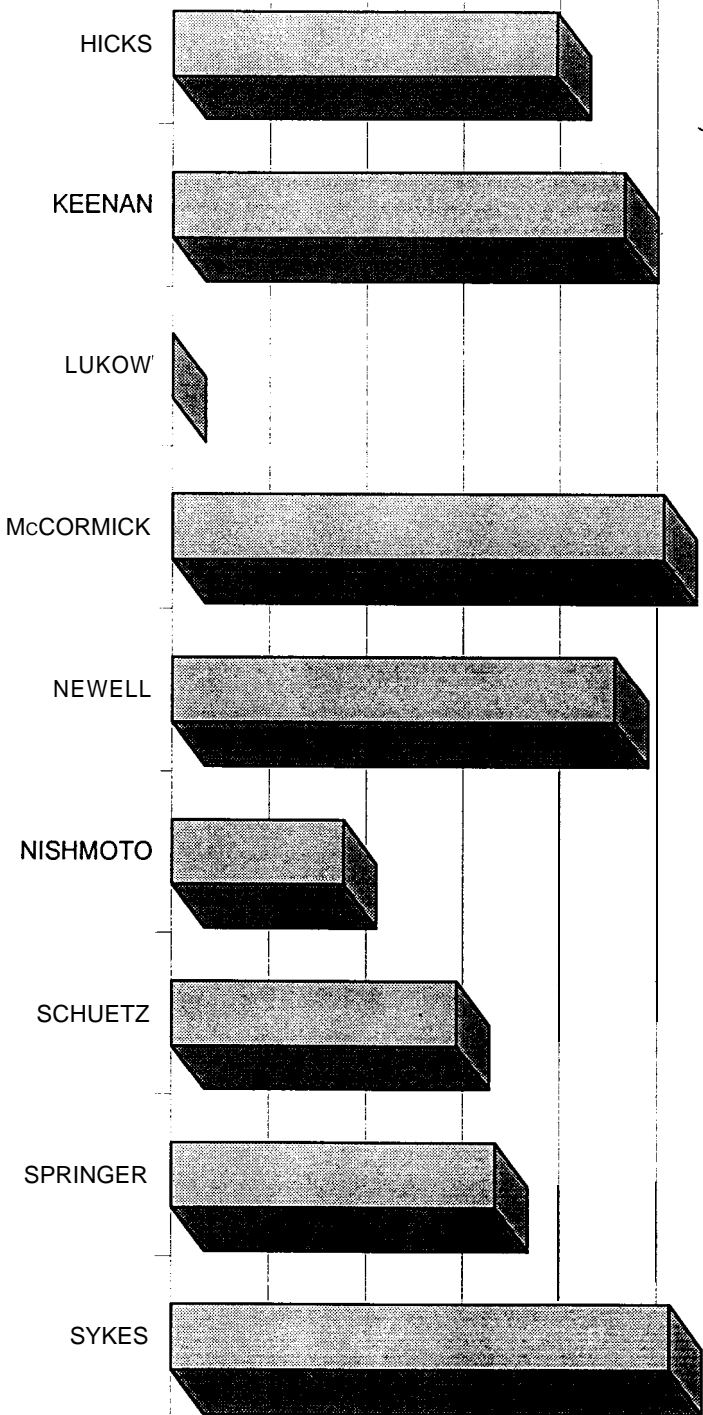
30

20

10

0

OVERALL RATING
35% COMPLETE



APPENDIX B

APPENDIX B

MSD -S

% COMPLETE

100 , --

90

80

70

60

50

40

30

20

10

0

OVERALL RATING
5% COMPLETE

BARTLETT

CASEY

GRACE

JOHNSON

KWEI

LOZANO

McDONOUGH

MORROW

PAZAR

RIDENOUR

RUDOLPH

TARDIFF

STOKES

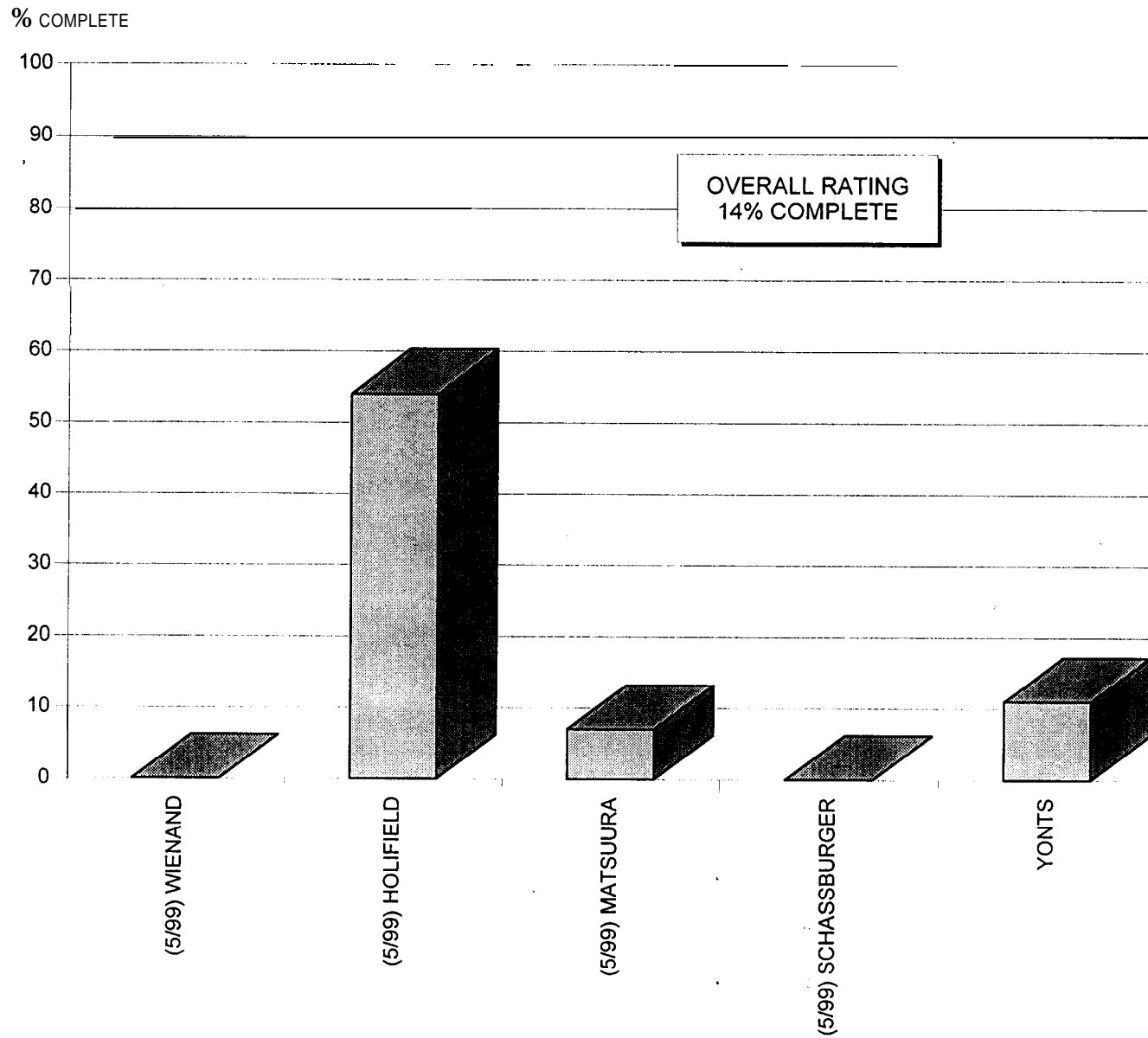
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HEIDEMANN

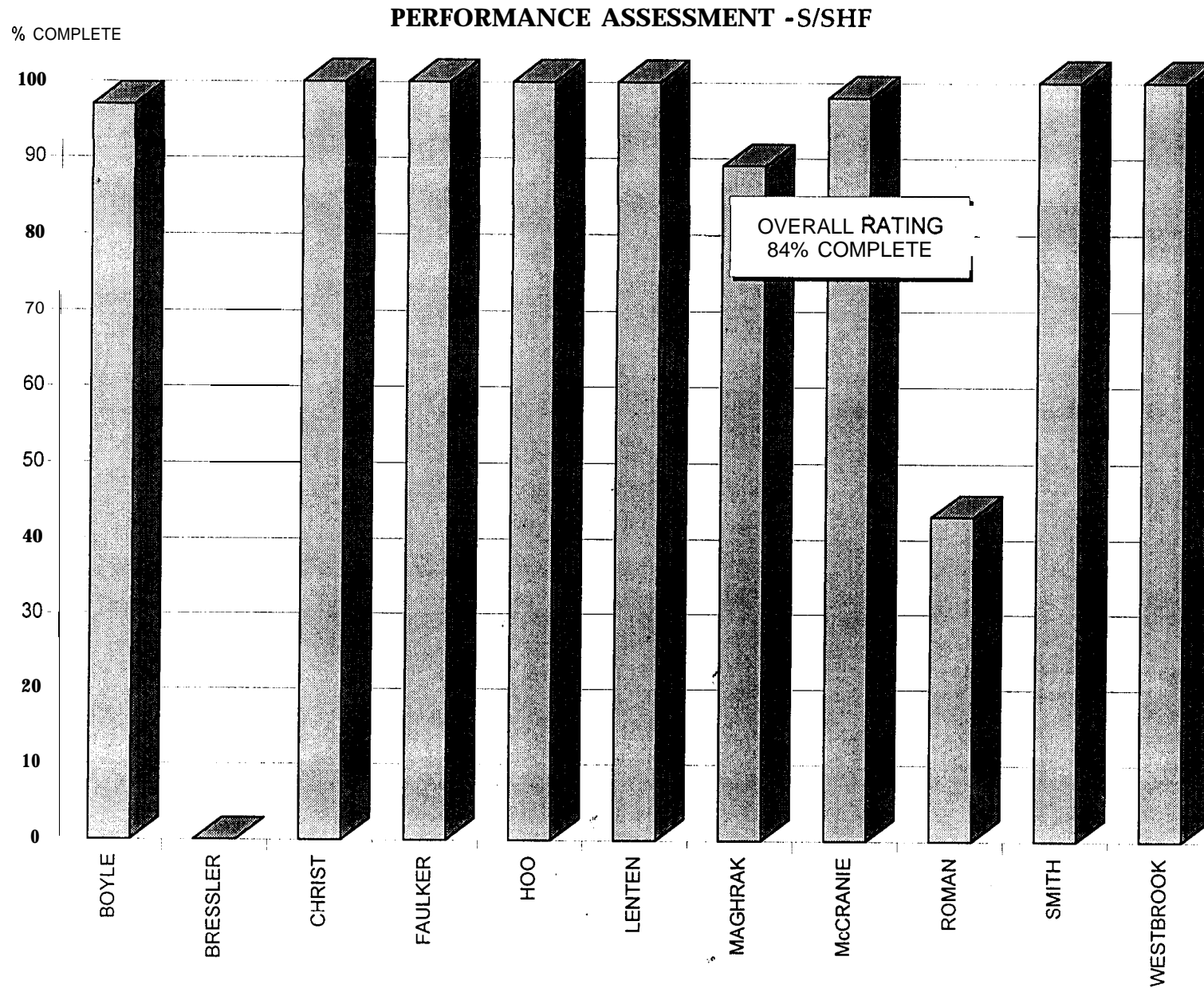
APPENDIX B

APPENDIX B

PERFORMANCE ASSESSMENT - AE

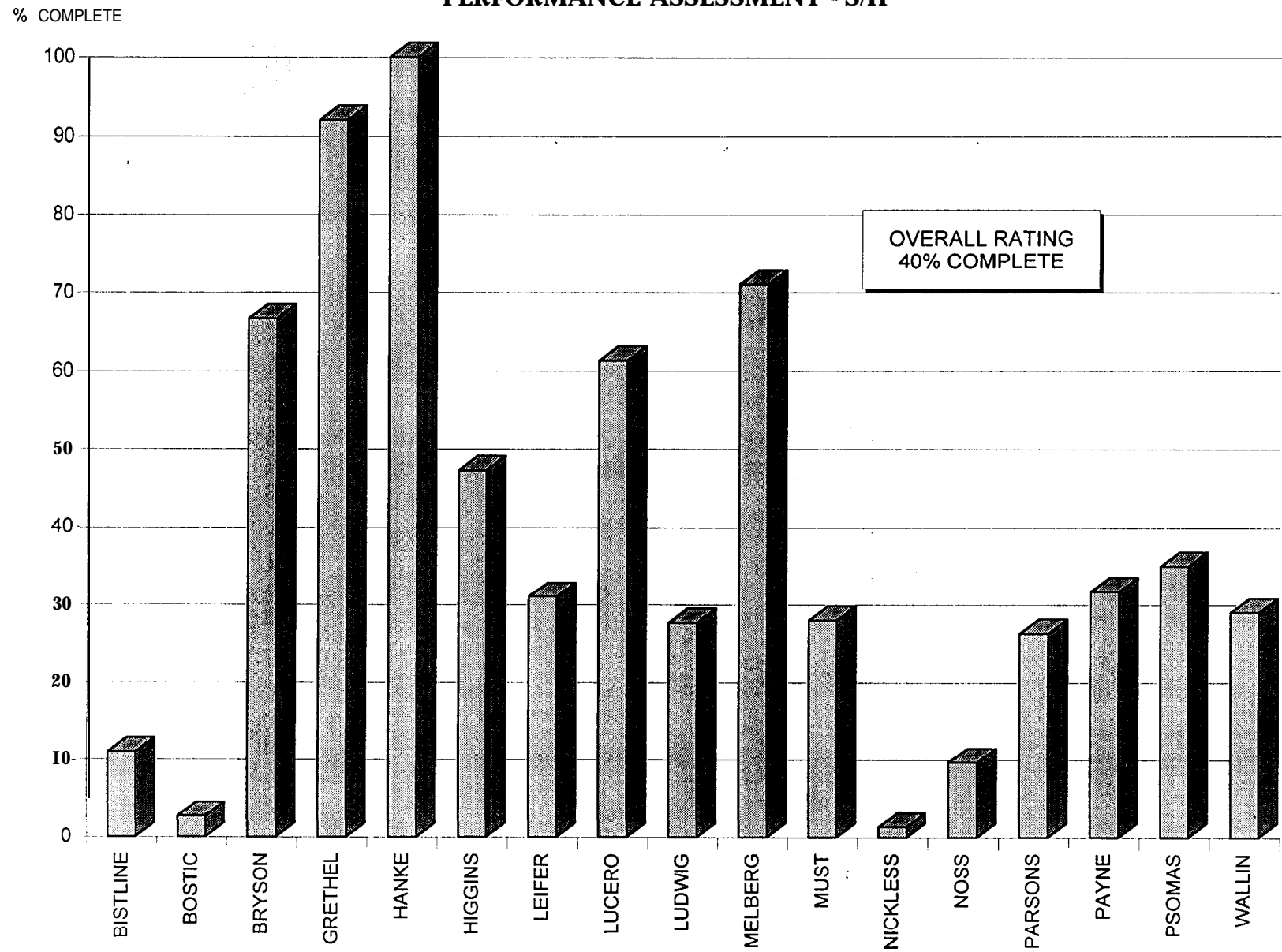


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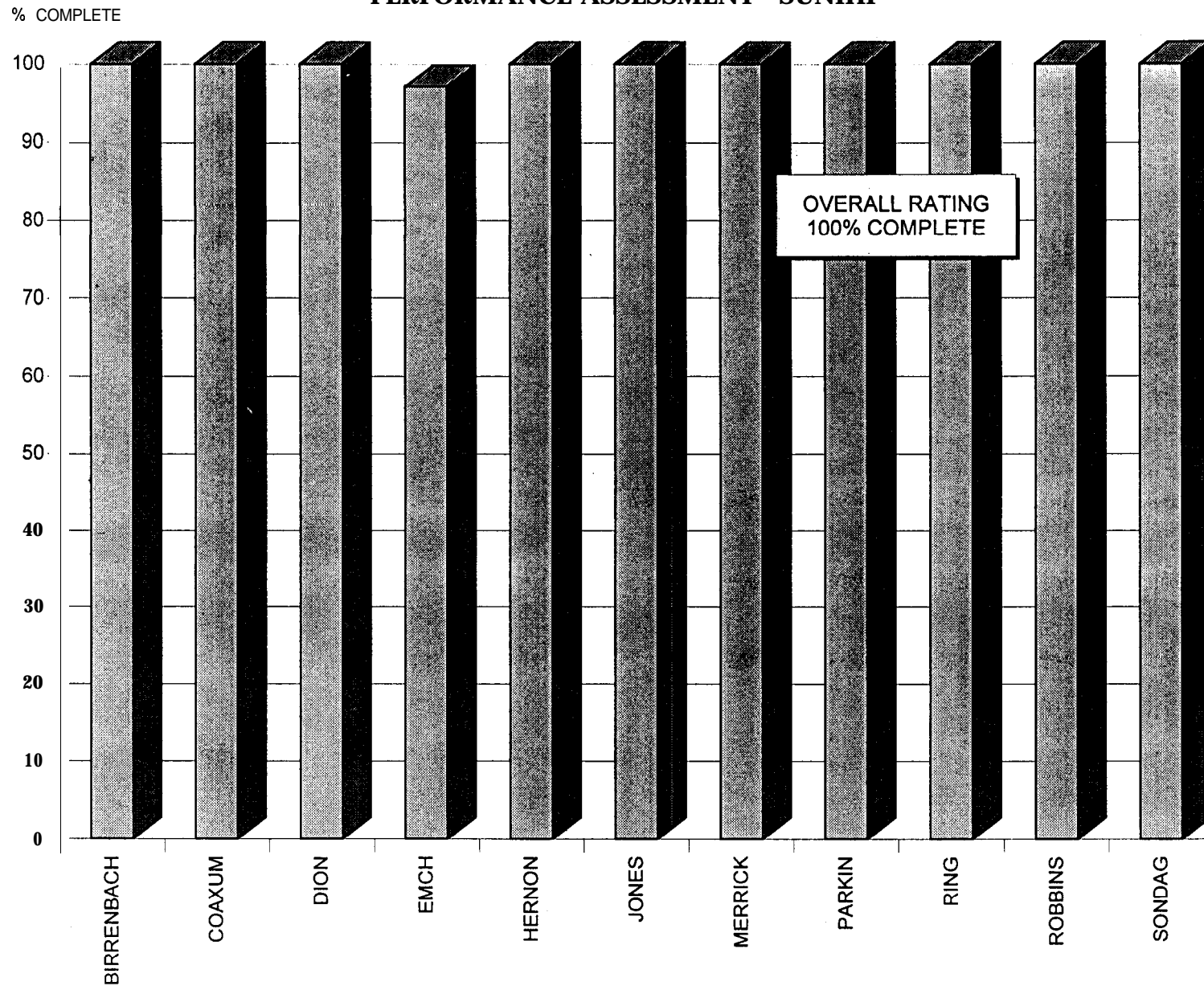
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PERFORMANCE ASSESSMENT - S/H



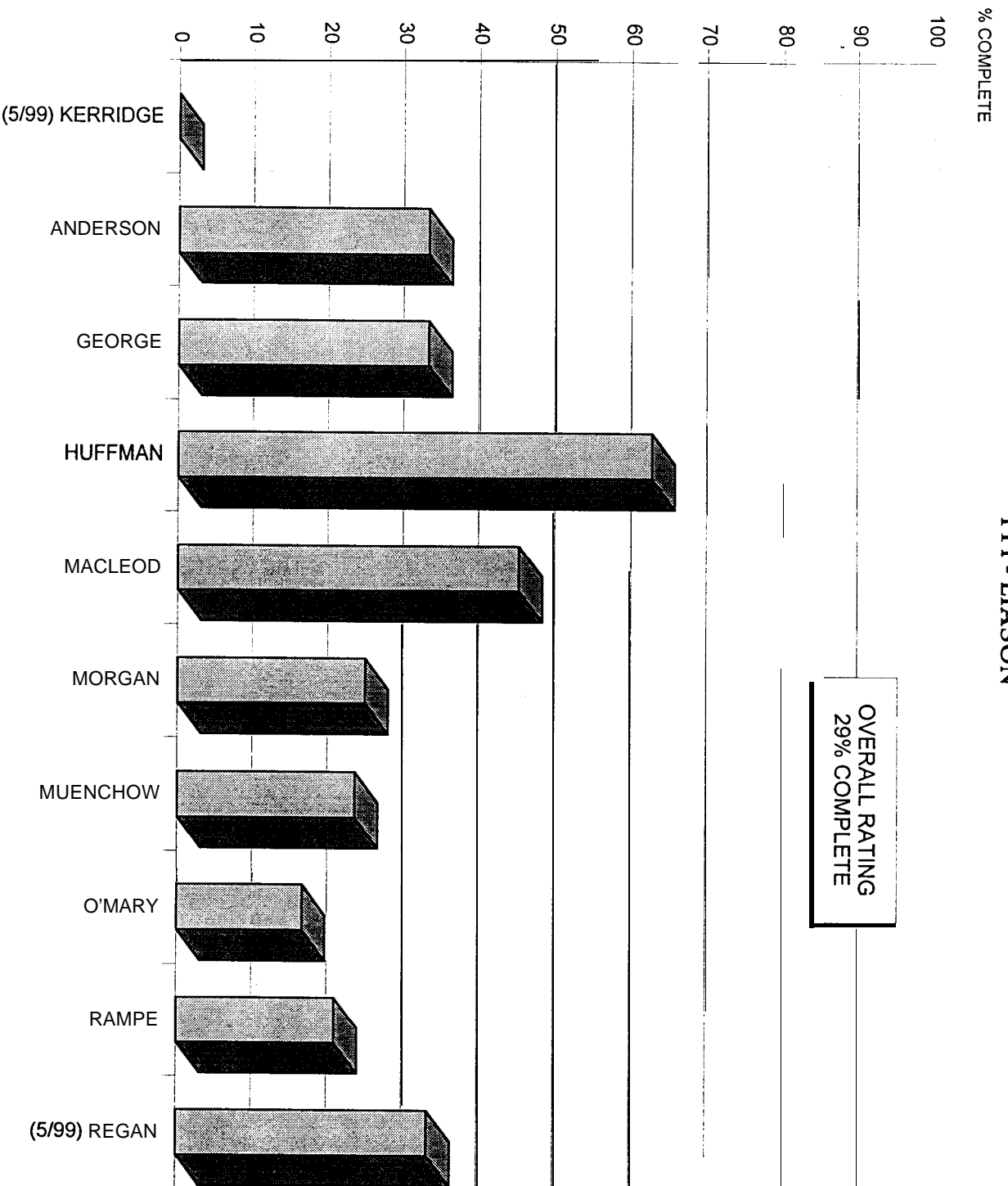
APPENDIX B

PERFORMANCE ASSESSMENT - SUNIHF



APPENDIX B

PPI - LIASON

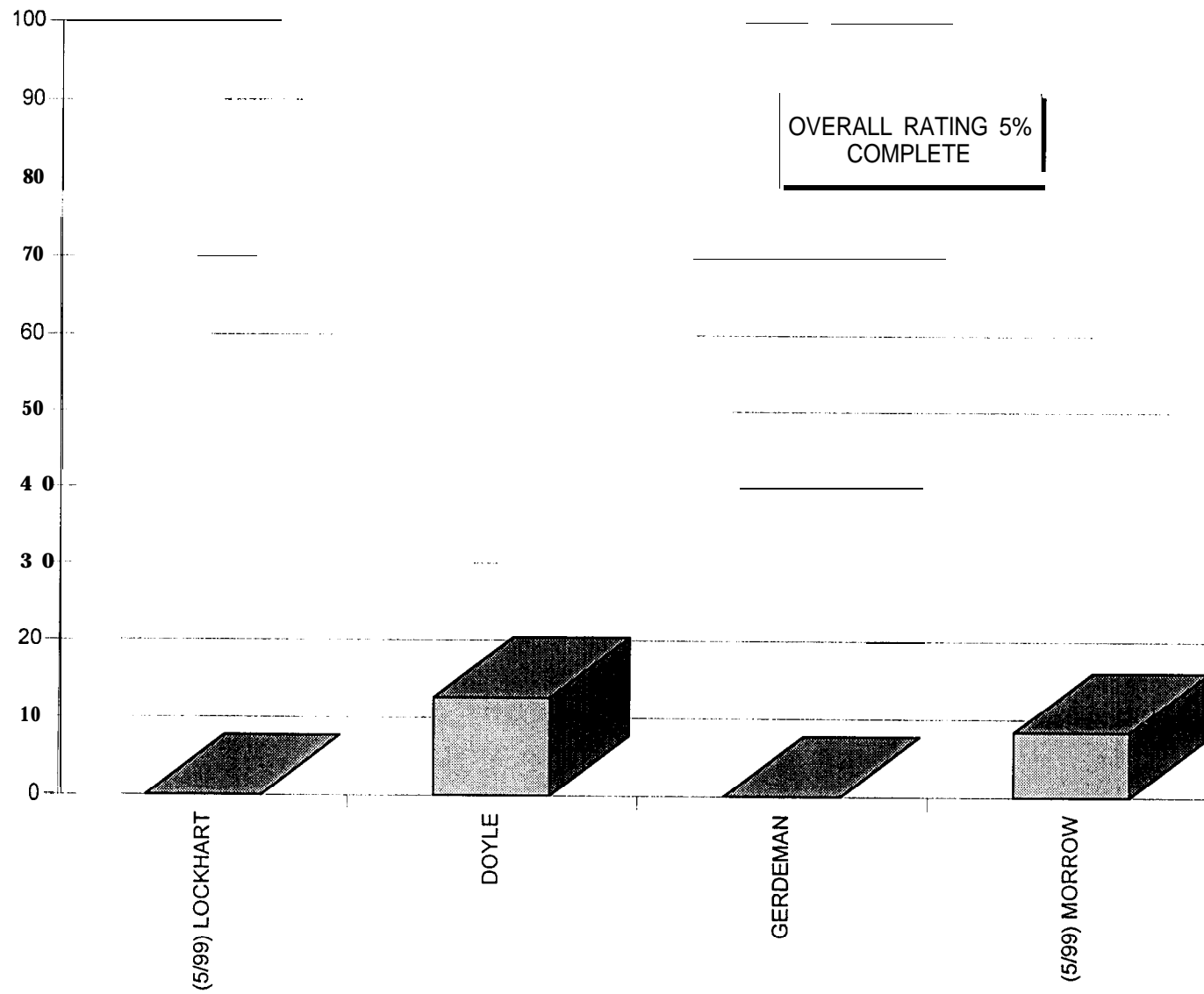


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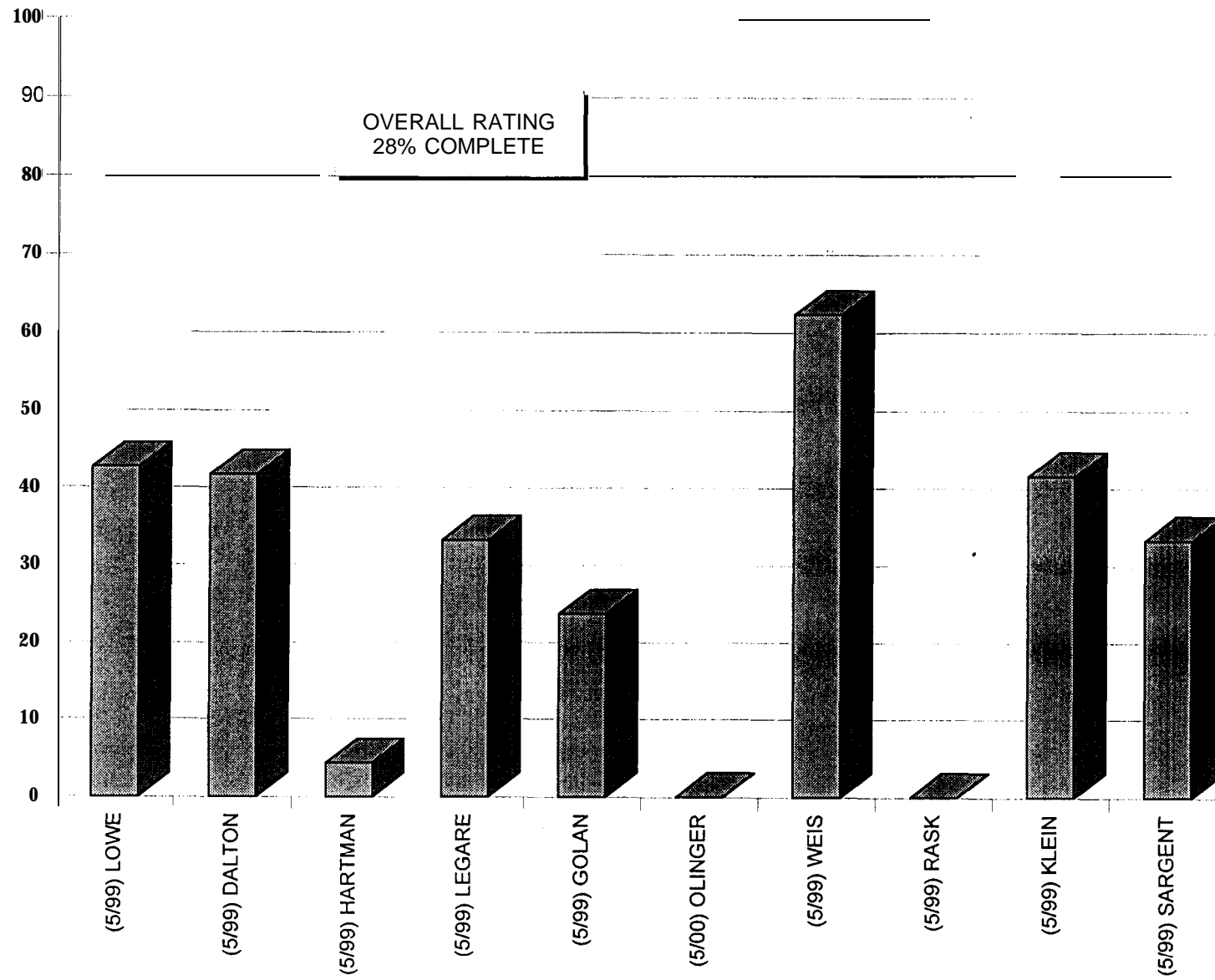
PPI P/I

% COMPLETE



APPENDIX B

SENIOR MANAGEMENT



APPENDIX C

LIST OF DOCUMENTS REVIEWED

1. Recommendation 93-3 to the Secretary of Energy pursuant to 42 U.S.C. s 2286a(5), Atomic Energy Act of 1954, amended, dated June 1, 1993.
2. Letter to all DOE Field Offices, referencing the June 1, 1993, 93-3 recommendation, dated June 2, 1993.
3. Department of Energy's Implementation Plan SAI-44, *Corporate Approach to Training in the Department of Energy*, dated June 16, 1995.
4. Defense Nuclear Facilities Safety Board response to the Implementation Plan, dated June 30, 1995.
5. Memorandum to Mark Silverman on the Review of the Technical Qualification Program Implementation, dated May 8, 1996.
6. Department of Energy's review of the K-H Training and Qualification Assessment, dated September 18, 1996.
7. RFFO Standing Operating Procedures - No. 95-01 - Contractor Activity Oversight
8. RFFO Standing Operating Procedures - No. 95-02 - Curriculum Development
9. RFFO Standing Operating Procedures - No. 95-03 - Training
10. DOE Order 360.1 *Training*